

FIG. 12 is a sectional view to show a process to manufacture a pixel TFT and TFT of a driver circuit;

FIG. 13 is a sectional view to show a structure of a pixel TFT;

FIG. 14 is a sectional view to show a process to manufacture an active matrix liquid crystal display device;

FIG. 15 is a sectional view of a driver circuit and a pixel portion of a light-emitting device;

FIG. 16A is a top view of a light-emitting device;

FIG. 16B is a sectional view of a driver circuit and a pixel portion of a light-emitting device;

FIG. 17A to 17E are drawings to show examples of a semiconductor device;

FIG. 18A to 18C are drawings to show examples of a semiconductor device;

FIG. 19A to 19D are drawings to show examples of a semiconductor device;

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[Embodiment Mode 1]

[0040]

The embodiment mode 1 of the present invention is explained with reference to FIG. 2. This embodiment mode explains an example in which long beams 205 and 206 are formed to irradiate a surface of a semiconductor film 204.

[0041]

First of all, an LD pumped laser oscillator 201 with an output of 10 W (Nd:YVO<sub>4</sub> laser, CW, the second harmonic (532 nm)) is prepared. The laser oscillator 201 generates in TEM<sub>00</sub> mode, and includes LBO crystal in its resonator to convert the laser beam into the second harmonic. The harmonic is not limited to the second harmonic but the second harmonic is superior to the other higher harmonics in terms of the conversion efficiency. The beam diameter is 2.25 mm. The divergence angle is approximately 0.3 mrad. The traveling direction of the laser beam is changed by a 45° reflecting mirror 202 so as to have an angle of  $\phi$  from the vertical direction. Next, the laser beam is made incident at an angle  $\phi$  into a planoconvex lens 203 having a focal length of 20 mm whose plane portion corresponds to a horizontal plane. The angle  $\phi$  may be changed appropriately, and it is set to 20° in this embodiment mode. The semiconductor film 204 is set on a surface to be irradiated in parallel with the horizontal plane. The semiconductor film 204 is formed over a surface of a glass substrate. A

mg  
10.26.07